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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,721	05/20/2004	Mark A. Hochwalt	713629.421	8654

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EXAMINER	
CHOI, FRANK I	

ART UNIT	PAPER NUMBER
1616	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/849,721	HOCHWALT ET AL.	
	Examiner	Art Unit	
	Frank I. Choi	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcus et al. (US Pat. 4,826,497) in view of EP 0 509 409, Peterson et al. (US Pat. 5,780,020), JP 63216572 (Abstract), JP 72046908 (Abstract) and DE 19837539 (Abstract).

Marcus et al. teach fibrous absorbent articles containing a zeolite having at least about 90 percent framework of tetrahedral oxides units being Si02 tetrahedra, a sorptive capacity for water of less than 10 weigh percent when measure at 25 degrees Celsius and 4.6 torr, and a pore diameter of at least 5.5 Angstroms, where the water of hydration is removed (Column 3, lines 40-68, Column 4, lines 1-35). It is taught that other components such as medicants, other absorbents and adsorbents, such as sodium bicarbonate and clinoptilolite (Column 7, lines 23-29). It is taught that clinoptilolite is a preferred odor suppressant (Column 3, lines 32-35). It is disclosed that high zeolites, such as Abscents®, are preferred over the intermediate zeolites for control of odors associated with sulfur compounds (Column 17, lines 60-68, Column 18, lines 1-5).

EP 0 509 409 teach feminine products having a combination of acidic, basic and neutral deodorants and that that acidic particles having a pH of less than 7 are suitable as deodorants of basic compounds, that sodium bicarbonate is suitable as a deodorant of acidic compounds and

that Abscents® and Smellrite ® are preferred pH neutral odor absorbing materials as they retain most of their absorbent capacity in moist conditions (pgs. 4,5).

Peterson et al. teach that antimicrobial agents, such as zinc oxide, are used in deodorant products to help to control odor by controlling bacteria or fungi (Column 4, lines 50-68, Column 5, lines 1-23). Peterson et al. discloses that the zeolites of the claimed invention are suitable for use in invention of Peterson et al. (See Peterson et al., Column 4, lines 58-61).

JP 63216572 (Abstract) teaches that sorbic acid is an effective deodorant.

JP 72046908 (Abstract) teaches that itaconic acid is an effective deodorant.

DE 19837539 (Abstract) teaches that maleic or fumaric acids are effective deodorants.

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose the combination of the claimed acids, the claimed synthetic zeolite and metal or metal oxides. However, the prior art amply suggests the same as it is known the deodorant products contain the claimed acids, the claimed synthetic zeolites and the claimed metal or metal oxides for odor control. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that the addition of the acids, sodium bicarbonate, clinoptilolite and metal oxides would improve odor control.

One of ordinary skill in the art would be motivated to add zinc oxide as zinc oxide is disclosed to control odors by acting as an antimicrobial agent, would be motivated to add an acid having a pH of less than 7 as said acids are disclosed to control odors from basic compounds and would be motivated to use Smellrite® or Abscent® as the same are disclosed to retain most of

their absorbent capacity in moist conditions with the expectation that the combination would be more effective as the combination would work against odors resulting from various sources.

The claimed acids are clearly encompassed by the disclosure of EP 0 509 409. EP 0 509 409 specifically discloses the following acids, maleic acid, stearic acid and malonic acid. Maleic acid appears to be structurally similar to aspartic acid (adds amino group substituent to carbon chain, removes double bond), methylsuccinic acid (adds methyl group substitutent to carbon chain, removes double bond), adipic acid (lengthens carbon chain by two methyl groups, removes double bond), glutaric acid (lengthens carbon chain by one methyl group, removes double bond), itaconic acid (adds double bond methyl group substituent, removes double bond), tartaric acid (adds two hydroxyl group substituents, removes double bond), and fumaric acid (trans isomer). Stearic acid appears structurally similar to sorbic acid (reduces carbon chain by 12 carbons, adds two double bonds). Malonic acid appears structurally similar to dimethymalonic acid (adds two methyl group substituents to carbon chain), adipic acid (increases carbon chain by 2 carbons), glutaric acid (increases carbon chain by 1 carbon) and fumaric acid (increases carbon chain by 1 carbon, adds double bond). As indicated above, the acids disclosed in EP 509 409 are disclosed to be effective in controlling odors. Further, as indicated above, the specifically disclosed acids in EP 509 409 appear to be structurally similar to the claimed acids and the prior art teaches that sorbic acid, itaconic acid and fumaric acid are effective deodorants. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." In re Payne, 203 USPQ 245, 254 (CCPA 1979). See also In re Dillon, 16 USPQ2d 1897 (Fed. Cir. 1991). As

such, one of ordinary skill in the art would expect that homologues of maleic acid, stearic acid and malonic acid, including adipic, aspartic, dimethylmalonic, fumaric, sorbic, glutaric, methylsuccinic, itaconic or tartaric acid, would have similar deodorant activity.

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be prima facie obvious.). See also In re Crockett, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and Ex parte Quadranti, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held prima facie obvious). As such, it would be obvious to combine deodorants to together with the expectation that the combination would also have deodorant properties.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. Examiner maintains a flexible schedule. However, Examiner may generally be reached Monday-Friday, 8:00 am – 5:30 pm (EST), except the first Friday of the each biweek which is Examiner's normally scheduled day off.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Gary Kunz, can be reached at 571-272-0887. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
FIC March 21, 2005

S. MARK CLARDY
PATENT EXAMINER
GROUP 1200
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